AMENDMENTS TO THE CLAIMS

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1. (Currently Amended) A ~~low cost high resolution~~ digital camera comprising:

a two dimensional image plane within said camera toward which light from a three dimensional image is directed;

a high resolution sensor array spanning a first dimension of said image plane for generating image data;

an actuator for moving said high resolution sensor array through a second dimension of said image plane while said sensor array acquires image data at discrete distance intervals of said second dimension, thereby enabling said camera to acquire image data at discrete intervals along an entirety of said image ~~plane.~~ plane; and

a control board for receiving said image data from said sensor array.

2. (Canceled)

3. (Original) The digital camera of claim 1, wherein said image is remotely located from said camera.

4. (Original) The digital camera of claim 1, wherein said image changes with time.

5. (Original) The digital camera of claim 1, wherein said sensor array comprises:

a charge coupled device.

6. (Original) The digital camera of claim 5, wherein said charge coupled device comprises more than one thousand pixels.

7. (Currently Amended) The digital camera of claim 6, comprising:

a substantially straight line sensor array spanning the first dimension of said image plane; and

a linear actuator for moving said substantially straight line ~~actuator~~ sensor array linearly along the second dimension of said image plane.

8. (Original) The digital camera of claim 7, wherein said linear actuator comprises:

an electric motor; and

a belt and pulley system.

9. (Original) The digital camera of claim 1, comprising:

a rotary actuator for rotating said sensor array through the second dimension of said image plane, wherein said rotation enables said sensor array to acquire image data at closely spaced intervals across an entirety of said image plane.

10. (Currently Amended) The digital camera of claim 1, wherein ~~a package including~~ said sensor array and said actuator are part of a package that has been retrofitted into the digital camera. ~~is suitable for retrofitting into an existing camera thereby providing further cost savings.~~

11. (Original) The digital camera of claim 1, further comprising:

at least one additional high resolution sensor array spanning a first dimension of said image plane, thereby providing a plurality of high resolution sensor arrays, wherein said plurality of sensor arrays are moved through portions of said second dimension of said image plane to more rapidly complete image data acquisition at discrete intervals along the entirety of said image plane.

12. (Currently Amended) A method for ~~cost effectively~~ generating digital data in a digital camera, the method comprising[[the steps of]]:

directing light from a remotely located image toward an image plane within said digital camera, wherein the image plane is a two dimension space in said camera toward which light from said image is directed, said image plane having first and second dimensions;

deploying a plurality of said high resolution one dimensional sensor arrays which span the first dimension of the image plane across said second dimension of said image plane;

moving each sensor array of said plurality of sensor arrays through a portion of the second dimension of the image plane, wherein each sensor array traverses a portion of the image plane exclusive of at least one other sensor array of the plurality sensor arrays; and

[[rapidly moving a high resolution one dimensional sensor array which spans the first dimension of said image plane through the second dimension of said image plane, thereby spanning said image plane as quickly as possible; and]]

converting light received by said one dimensional sensor ~~array~~ arrays into digital image data [[at closely spaced intervals during said step of ~~rapidly~~ moving, thereby acquiring digital image data at closely spaced intervals]] acquired in two dimensions along [[an entirety]]of said image plane, and generating two dimensional digital image data.

13. (Original) The method of claim 12, comprising[[the further step of]]:

transmitting said two dimensional digital image data to a storage device.

14. (Original) The method of claim 12, wherein said remotely located image is three dimensional.

15. (Canceled)

16. (Original) The method of claim 12, wherein said digital image data comprises:

brightness information; and

color information.

17. (Currently Amended) The method of claim 12, wherein[[:]] each said sensor array spans a linear dimension of said image plane; and said ~~step of~~ moving comprises:

linearly moving each said sensor array through a second dimension of said image plane thereby enabling acquisition of two dimensional image data across the entirety of said image plane.

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18. (Currently Amended) The method of claim 12, wherein[[:]] each said sensor array spans a linear dimension of said image plane; and said ~~step of~~ moving comprises:

rotating each said sensor array through a second dimension of said image plane thereby enabling acquisition of two dimensional image data across the entirety of said image plane.

19. (Currently Amended) The method of claim 12, said [[step of]]moving comprising:

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continuously moving each said sensor array through said image plane thereby generating a sequence of digital still images in rapid succession enabling said digital camera to capture moving video image data.

20. (Currently Amended) The method of claim 12, wherein said [[step of]] converting light into digital image data is performed at different rates at different points during travel of said sensor array along said second dimension of said image plane.

21. (New) A method for generating two dimensional digital image data in a digital camera, the method comprising:

directing light from a source toward an image plane within said digital camera, wherein the image plane having first and second dimensions;

providing a high resolution sensor array which span the first dimension of the image plane;

moving the sensor array through a portion of the second dimension of the image plane;

collecting sampling data samples from the light received by the sensor at a sampling rate; and

processing the data samples into the two dimensional digital image data.

22. (New) The method of claim 21, wherein the array has a variable sampling rate.

23. (New) The method of claim 22, further comprising:

changing the sampling rate based upon a characteristic of the two dimensional digital image data.

24. (New) The method of claim 22, further comprising:

increasing the sampling rate to process said image data with increased resolution.

25. (New) The method of claim 22, further comprising:

changing the sampling rate for at least one point along the image plane.

26. (New) The method of claim 21, wherein the sensor array may be moved at a variable velocity.

27. (New) The method of claim 26, further comprising:

increasing the variable velocity to accurately process a dynamically changing image.

28. (New) The method of claim 21 wherein said image plane comprise a long dimension and a short dimension wherein said sensor array spans said long dimension and is moved across the length of said short dimension.

29. (New) The method of claim 21 wherein said image plane comprise a long dimension and a short dimension wherein said sensor array spans said short dimension and is moved across the length of said long dimension.

30. (New) The method of claim 21, wherein the at least one sensor array comprises two sensor arrays, and first array is located at a one end of said image plane and the second array is located in a middle of said image plane, wherein the moving comprises:

moving the first array and the second array to the direction of the other end of the image plane at the same time; and

ceasing moving the first array and the second array when the first array is located in the middle of the image plane and the second array is located at the other end of the image plane.

31. (New) The method of claim 21, wherein the at least one sensor array comprises two sensor arrays, and first array and the second array are located in a middle of said image plane, wherein the moving comprises:

moving the first array toward one end of the image plane and moving the second array toward the other end of the image plane at the same time;

ceasing moving the first array and the second array when the first array is located at the one end of the image plane and the second array is located at the other end of the image plane.